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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,361	04/16/2004	Ji Hyun Hwang	MRE-0045.I	8094

34610            7590            05/15/2007  
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P.O. Box 221200  
Chantilly, VA 20153-1200

EXAMINER
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WAGGONER, TIMOTHY R

ART UNIT	PAPER NUMBER
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3651

MAIL DATE	DELIVERY MODE
05/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/825,361	HWANG ET AL.
	Examiner Timothy R. Waggoner	Art Unit 3651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 03/07/2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 15-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 15-17 and 32 is/are rejected.
- 7) Claim(s) 18-31 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION*****Response to Arguments***

Applicant's arguments filed 03/07/2007 have been fully considered but they are not persuasive. Applicant argues that the combination of Hawkswell/Briehl/Umetsu does not anticipate a drive mechanism comprising a plurality of magnets and coils and the ability to move forwards and backwards and that Hawkswell teaches away from it. On the first point that the drive mechanism doesn't comprise a plurality of magnets and coils, it is inherent in an electrical motor that a plurality of magnets and coils are needed to construct such a motor. As for the means Hawkswell teaches to prevent the unintentional reversing of the feed, the motors of Briehl and Umetsu both include means to prevent the unintentional reverse feed of the strip while allowing for adjustment if necessary. For these foregoing reason claims 15-17 and 32 stand rejected.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-17 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkswell USPN 4,687,152 in view of Briehl 5,941,674 or Umetsu et al. USPN 5,289,625.

Hawkswell discloses a parts feeding device comprising:

(Re claim 15) "a feeding unit installed on a main frame, the feeding unit comprising" (52 figure 2). "a tape at a predetermined pitch interval" (38 figure 2). "a vinyl separation unit" (68 figure 2). "a vinyl recovery unit" (70 figure 2).

Hawkswell does not disclose that the feeding unit is capable of moving forward and backwards driven by a force generating device comprising a plurality of armature coils and a magnet unit.

Briehl and Umetsu both teach a feeding unit capable of moving forward and backwards driven by a force generating device comprising a plurality of armature coils and a magnet unit.

It would be obvious to one skilled in the art to modify Hawkswell to make the feeding unit capable of moving forward and backwards and driven by a force generating device comprising a plurality of armature coils and a magnet unit because it uses fewer moving parts making the device simpler and more robust.

(Re claim 16) "vinyl separation unit utilizes rotational force generated by the feeding unit" (48 figure 2, Hawkswell).

(Re claim 17) "vinyl recover unit is connected to the vinyl separation unit by a belt and recovers the vinyl" (76 figure 2, Hawkswell).

(Re claim 32) "a surface mounting device" (23 figure 1, Hawkswell).

***Allowable Subject Matter***

Claims 18-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

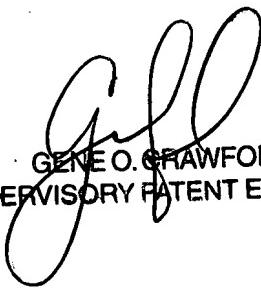
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy R. Waggoner whose telephone number is (571) 272-8204. The examiner can normally be reached on Mon-Thu 8am-2pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TRW



GENE O. CRAWFORD  
SUPERVISORY PATENT EXAMINER